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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,753	06/25/2003	Charles T. Willoughby	GSC-04502/03	2152

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EXAMINER

SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,753

Applicant(s)

WILLOUGHBY, CHARLES T.

Examiner

Hargobind S. Sawhney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The amendment filed on March 2, 2005 has been entered. Accordingly:
 - Claims 1-4 and 7 have been amended; and
 - Claim 6 has been cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-4 and 7 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. Patent No. 5,430,620) in view of Mori (U.S. Patent No. 4,428,031).

Regarding Claim 1, Li ('620) discloses an illuminator (Figures 1a-1c) comprising:

- a housing 6 including a hollow interior 15 with a light receiving end 7 and a light projecting end bearing a fresnel lens 9 (Figure 2b, column 7, lines 49-53 and 65-68);

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- an fiber optic 1 carrying light from a light source, remotely located, (not shown) into the interior of the housing 6 through the light receiving end 7 (Figure 2b, column 7, lines 49-53 and 65-68);
- the fresnel lens 9 mounted on the light projecting end of the housing (Figure 2b, column 7, lines 49-53); and
- a mechanism 3 for mounting the illuminator housing on the wearer's head, (Figures 1a-1c, column 12, lines 3-14).

Although, Li ('620) discloses a head wearable illuminator with a fresnel lens, Li ('620) does not specifically teach the fresnel lens having one set of its grooves facing the interior of the housing.

On the other hand, Mori ('031) discloses an illuminator (Figure 2) comprising the fresnel lens 2 mounted on the light projecting end of the housing 20 (Figure 2, column 3, lines 10-12); and one of the two sides of the fresnel lens 2 bearing a set of grooves facing exterior of the housing 2 (Figure 2, column 4, lines 3-7). In addition, Mori ('031) allows positioning of the fresnel lens 2 with its surface with grooves facing the interior of the housing (Figure 2, column 4, lines 15-19).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the an illuminator of Li et al. ('620) positioning the fresnel lens with its grooves facing the interior of thee housing taught by Mori ('031) for benefit and advantage minimizing interference fringes on refracted light rays.

Regarding claims 2-4 and 7, Li ('620) in view of Mori ('031) discloses the illuminator further comprising:

- the projecting end – the end bearing a fresnel lens 9 - of the housing movable forward and backward relative to the light receiving end 7 (Li, Figures 1b and 1c, column 8, lines 27-30);
- the light projecting end bearing the fresnel lens 9, and the light receiving end 7 being connected with a threaded coupling 8 enabling the light projecting end to be moved forward and backward relative to the relative to the light receiving end 7 (Li, Figures 1b and 1c, column 8, lines 22-30); and
- the fresnel lens 2 made of acrylic – transparent plastic – (Mori, Figure 2, column 2, lines 7-11); and
- the mechanism 3 allowing mounting of the housing on the wearer's head, (Figures 1a-1c, column 12, lines 3-14).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (U.S. Patent No. 5,430,620) in view of Mori (U.S. Patent No. 4,428,031) as applied to Claim 1 above, and further in view of Belfer (U.S. Patent No.: 6,234,640 B1).

Li ('620) in view of Mori ('031) discloses the illuminator further comprising a cylindrical housing. However, neither combined nor individual teaching of Li ('620) and Mori ('031) discloses an illuminator having a conical housing.

On the other end, Befler ('640 B1) discloses a fiber optic replicant lamp 20 including a housing 20 with a conical light-projecting end (Figures 2a-2c).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the an illuminator of Li ('620) in view of Mori ('031) by providing the

housing with a conical light projecting end as taught by Belfer ('640 B1) for benefit and advantage of a large projection area for illumination.

Response to Amendment

5. Applicant's arguments filed on March 2, 2005 with respect to the 35 U.S.C. 103(a) rejections of claims 6 have been fully considered but are moot in view of cancellation of Claim 6.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS
4/28/2005


Stephen Husar
Primary Examiner